![Chipsmall logo]

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With the principle of "Quality Parts,Customers Priority,Honest Operation,and Considerate Service",our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

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TSL1401 USB EVM
Quick Start Guide ●TAOS

Verify EVM Package Items

Open the EVM package and verify you have the following items:

1	Parallax MOBO 2P/2PE motherboard
2	TSL1401-DB daughterboard with infrared lens
3	USB cable type A - mini B connector
4	documentation

The TSL1401EVM should be installed using the following sequence:

- Step 1: Download and install FTDI USB Driver for Parallax motherboard.
- Step 2: Plug-in the daughterboard to port B of motherboard (MB) then connect the MB to PC via USB cable
- Step 3: Download and run TSL1401 USB EVM software application.

Note: Always adhere to ESD guidelines per your requirements in handling the EVM

Step 1: USB DRIVER INSTALLATION

Installation of the USB virtual COM port (VCP) drivers will take place after downloading the USB driver software setup file to your personal computer (PC).

Download filename: USB_VCP_driver_install
Location: www.taosinc.com/Evaluationmodule.aspx

Alternative location:
http://www.parallax.com/html_pages/downloads/softw are/ftdi_drivers.asp

After downloading the VCP driver file to your PC; next run the file to install the USB VCP driver.

Step 2: Assemble TSL1401 USB EVM And Connect to PC

Remove the motherboard and TSL1401 DB from their protective packages. Plug the TSL1401 DB into port B of the motherboard. Using the enclosed cable, plug the mini-B connector into the EVM module. Using the other end of the cable, plug the USB A-connector into a USB port on the computer. The USB VCP driver should be assigned automatically.

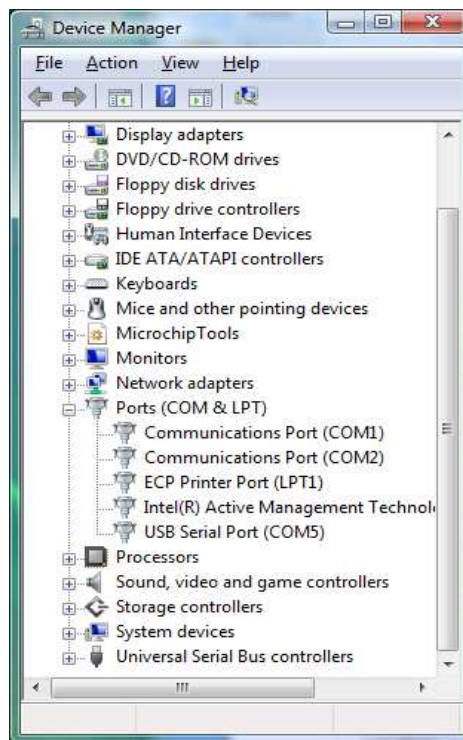To quickly check to see if the USB driver was installed properly:

Figure 1: Device Manager (Ports)

1   Go to the 'Device Manager' on your PC
2   Expand Ports section by clicking on the adjacent "+". A **USB Serial Port** device should appear. Note the COM number. (Figure 1)
3   The port will be listed as "USB Serial Port (COMx)" as shown above (note that the COM port number may differ from the number in this document).
4   Right click on the USB serial port and click 'Properties'
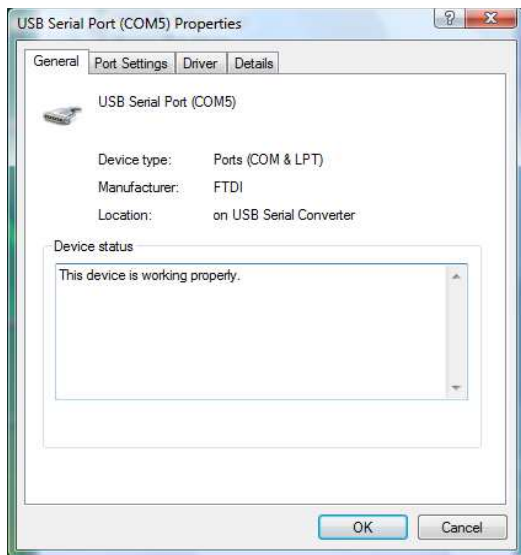5   Verify the Manufacturer is "FTDI" and the device is working properly.

Figure 2: USB Serial Port Properties

Step 3: Download and Launch EVM software application

Download the software application from TAOS website: www.taosinc.com/Evaluationmodule.aspx
Click on Downloads in the TSL1401EVM section. Download the application software "Monitor.zip" and save file to your local PC where you would like the program to reside. Unzip the files and launch the "TSL1401_Monitor.exe" .It's window should look similar to Figure 3.

TROUBLESHOOTING

Some installations may experience occasional connection problems that can be corrected through the virtual com port (VCP) driver properties. The following steps should correct these connection problems.

Note: (Non XP OS open device manager and skip 1-4)

1   Click Start, Control Panel
2   Double-click on the "System" icon.
3   Click on the "Hardware" tab.
4   Click on the "Device Manager" button.
5   Expand the "Ports (COM & LPT) tree by clicking on the "+" icon.
6   Right-click on the USB serial port, then click "Properties" from the pop-up menu.
7   Click on the "Port Settings" tab, then click the "Advanced..." button. (Figure 2)
8   Change the value of the "Latency Timer" under "BM Options" to 1 using the drop-down list.

Figure 3: TSL1401_Monitor GUI

HARDWARE CONFIGURATION

Conflicts can occur sometime between multiple devices that try to use the same COM port and it may be necessary to change port number to resolve the conflict.

Note: to change the COM port number of the FTDI VCP Driver:

1   Click Start, Control Panel
2   Double-click on the "System" icon.
3   Click on the "Hardware" tab.
4   Click on the "Device Manager" button.
5   Expand the "Ports (COM & LPT) tree by clicking on the "+" icon.
6   Right-click on the USB serial port that you want to change, then click "Properties" from the pop-up menu.
7   Click on the "Port Settings" tab, then click the "Advanced..." button.
8   Select a different COM port number that is not in use from the drop-down list at the top of the dialog box.

For more information on the TSL1401:

http://www.taosinc.com/contact.aspx